

REMARKS

Status of the Claims

- Claims 1-17 are pending in the Application after entry of this amendment.
- Claims 1-17 are rejected by Examiner.
- Claim 1 has been amended.

Claim Rejections Pursuant to 35 U.S.C. 112

Claim 1 stands rejected under 35 U.S.C. 112. Applicants respectfully traverse the rejection.

Specifically, claim 1 is rejected because the term “the third network” lacks sufficient antecedent basis. Claim 1 has been amended to provide antecedent basis for this term by amending the claim to recite “the third network station.” Thus, it is respectfully submitted that this rejection is overcome and should be withdrawn.

Claim Rejections Pursuant to 35 U.S.C. 103(a)

Claims 1-17 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication No. 2003/0110334 to Lanigan et al. (Lanigan) in view of US Patent Publication No. 2002/0078161 to Cheng. Applicant respectfully traverses the rejection.

The failure of an asserted combination to teach or suggest each and every feature of a claim remains fatal to an obviousness rejection under 35 U.S.C. § 103. Section 2143.03 of the MPEP requires the “consideration” of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely “consider” each and every feature for this claim. Instead, the asserted combination of the patents must also teach or suggest *each and every claim feature*. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (emphasis added) (to establish *prima facie* obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeals and

Interferences has confirmed, a proper obviousness determination requires that an Examiner make “a searching comparison of the claimed invention - *including all its limitations* - with the teaching of the prior art.” See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis in original). “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious” (MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)).

The presently claimed arrangement provides a method for controlling a first network station in a network of a first type from a second network station in a network of a second type. A network connection unit is provided for the connection of the two networks. The network connection unit performs a conversion of a control command issued in a format of the network of the second type into a corresponding control command in a format of the network of the first type. The network connection unit directs the corresponding control command to the first network station if the first network station provides a functionality corresponding to the control command. The format of the corresponding control command is adapted to the first network station. If the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type. The network connection unit determines the third network station by checking whether a connection set up is registered between the first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command. The format of the corresponding control command is adapted to the third network station.

Lanigan describes a bridge providing access to an entity on a hosting network to another accessing network. A bridge control unit is generated for each entity. The bridge control unit includes a first element arranged to present a virtual representation of the entity to the accessing network and to accept communications for the virtual entity in the format of the accessing network and a second element in communication with the first element arranged to pass the accepted communications to the entity in the format of the hosting network. The first element and

the second element are dynamically generated in dependence on the entity and a predetermined configuration. (See Lanigan paragraph [0011])

Claim 1 of the present arrangement provides a method of configuration where a functionality of a control command sent by a second network for controlling a first network station is not provided by the first controlled network station. This type of configuration is necessary when the controlling station is connected over a UPnP network, when the controlling device is connected over a HAVi network and in the present arrangement when the networks are connected to one another via a gateway. "The term gateway is often differentiated from the term "bridge" that is likewise customary otherwise. The difference between a bridge and a gateway is seen in the fact that a bridge transfers the data packets on the data link layer to the respective other network, whereas in a gateway the data packets are already transferred on a higher layer in the ISO/OSI reference model" (see specification, page 2, lines 27-36).

Lanigan neither teaches nor suggests "the network connection unit performing a conversion of a control command issued in a format of the network for the second type into a corresponding control command in a format of the network of the first type, the network connection unit directing the corresponding control command to the first network station if the first network station provides a functionality corresponding to said control command, the format of the corresponding control command being adapted to the first network station" as recited in pending claim 1. Lanigan describes a bridge between an UPnP network and an HAVi network. A first element and a second element are both included in the bridge, and communication is possible between the first and second elements (see paragraph [0024]). The present arrangement seeks to solve the deficiencies of a system such as Lanigan where it is impossible to complete conversion of control commands sent from a controlling network station (UPnP) to a controlled network station (HAVi). The arrangement of the claimed invention provides a connection unit or gateway that is adapted for transferring data packets that have already been transferred on a higher layer in the ISO/OSI reference model between two network stations that are both connected to different networks. Lanigan, in contrast, does not provide for "a network connection unit" or gateway, that performs "a conversion of a control command issued in a format of the network for the second

type into a corresponding control command in a format of the network of the first type, the network connection unit directing the corresponding control command to the first network station if the first network station provides a functionality corresponding to said control command, the format of the corresponding control command being adapted to the first network station” as recited in pending claim 1.

The present Office Action further concedes that Lanigan neither teaches nor suggests “wherein if the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type, wherein the network connection unit determines the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station” as recited in pending claim 1. However, the Office Action asserts that Cheng teaches the aforementioned feature. Applicant respectfully disagrees.

Cheng describes a method for coupling IP networks with non-IP networks. A bridging device couples an IP network to one or more non-IP networks. Each of the non-IP networks may employ different network technologies. The bridging device includes an IP network interface for receiving commands and requests from a UPnP controller on an IP network, and one or more slave network interfaces that transform the received commands and requests into device and network specific commands and requests. These device and network specific commands and requests are communicated to the controlled device, via the slave network, using the slave network’s protocol. The bridging device also communicates event status messages to the UPnP controller, corresponding to the non-UPnP devices’ response to the UPnP controller’s commands and requests. The bridging device also includes enabling logic to support the UPnP addressing, discovery, and description processes for each of the devices on the non-IP network. (See Cheng, paragraphs [0008] and [0009])

Cheng, like Lanigan, neither teaches nor suggests that “if the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type, wherein the network connection unit determines the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station” as recited in pending claim 1. Cheng describes a bridging device that couples an IP network and non-IP network. This bridging device allows control of non UPnP devices connected over the non-IP network by a UPnP controller connected over the IP network. This is not the same as a network connection unit directing the corresponding control command to a third network when the first network station does not provide the functionality corresponding to the control command. Cheng describes a bridge, similar to that of Lanigan, that converts messages from different network protocols. Cheng does not describe determining “the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station.” As recited in pending claim 1.

Additionally, Cheng, like Lanigan, neither teaches nor suggests “the network connection unit performing a conversion of a control command issued in a format of the network for the second type into a corresponding control command in a format of the network of the first type, the network connection unit directing the corresponding control command to the first network station if the first network station provides a functionality corresponding to said control command, the format of the corresponding control command being adapted to the first network station” as recited in pending claim 1.

Applicant submits that the combination of Lanigan and Cheng also neither teaches nor suggests the aforementioned features. Since Lanigan and Cheng both describe bridging devices and are both similar with each other, a combination of the two would not produce a system

substantially different from either Lanigan or Cheng, considered separately. The combination of Lanigan and Cheng would provide a bridging system between a UPnP network and HAVi network where control of the UPnP network would be possible over a non-IP network even if the UPnP network is connected over an IP network. However, this is not the same as presented in the currently pending claims, which provides a network connection unit or gateway that identifies a destination network station, converts the control command to a specific format adapted to the identified destination network station, and then directs the converted control command to the destination. Thus, the combination of Lanigan and Cheng neither teaches nor suggests “the network connection unit performing a conversion of a control command issued in a format of the network for the second type into a corresponding control command in a format of the network of the first type, the network connection unit directing the corresponding control command to the first network station if the first network station provides a functionality corresponding to said control command, the format of the corresponding control command being adapted to the first network station” or “if the first network station does not provide the functionality corresponding to the control command, the network connection unit directs the corresponding control command to a third network station in the network of the first type, wherein the network connection unit determines the third network station by checking whether a connection setup is registered between said first network station and a further network station in the network of the first type which provides the functionality corresponding to the control command, wherein the format of the corresponding control command is adapted to the third network station” as recited in pending claim 1. Therefore, it is respectfully submitted that the rejection of pending claim 1 is overcome and should be withdrawn.

Claims 2-9 and 17 are dependent on claim 1 and are considered patentable for the reasons presented above with regard to claim 1 per MPEP §2143.03. Therefore, it is respectfully submitted that the combination of Lanigan and Cheng fails to teach or suggest the features of claims 2 – 9 and 17. Consequently, withdrawal of the rejection of claims 2 – 6 and 17 is respectfully submitted.

Independent claim 10 includes features similar to those found in claim 1 and is considered patentable for the reasons presented above with regard to claim 1. Specifically, the combination of Lanigan and Cheng neither teaches nor suggests “the connection unit having conversion means for converting a control command issued by the second network station in a format of the network of the second type into a corresponding control command in a format of the network of the first type, said converting means directing said corresponding control command to said first network station and said format of the network of the first type being adapted to the first network station if the first network station provides a functionality corresponding to the control command, wherein the connection unit has further first conversion means for directing said corresponding control command to a third network station of said network of the first type” and that “said first conversion means are activated if the first network station does not provide any functionality corresponding to the control command, the first conversion means is adapted to determine said third network station from a check on whether a data connection setup is registered between said first network station and a further network station in the network of the first type which has a functionality corresponding to the control command, the format of the corresponding control command is adapted to said third network station” as recited in pending claim 10. Therefore, it is respectfully submitted that the rejection of claim 10 is overcome and should be withdrawn.

Claims 11-16 are dependent on claim 10 and are considered patentable for the reasons presented above with regard to claim 10 per MPEP §2143.03. Therefore, it is respectfully submitted that the combination of Lanigan and Cheng fails to teach or suggest the features of claims 11-16. Consequently, withdrawal of the rejection of claims 11-16 is respectfully submitted.

Conclusion

Applicant respectfully submits that the pending claims patentably define over the cited art and respectfully requests reconsideration and withdrawal of the 35 U.S.C. §103 rejections of the pending claims.

Having fully addressed the Examiner's rejections, it is believed that, in view of the preceding amendments and remarks, this application stands in condition for allowance. Accordingly then, reconsideration for a notice of allowance is respectfully solicited.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 07-0832 therefore.

Respectfully submitted,
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